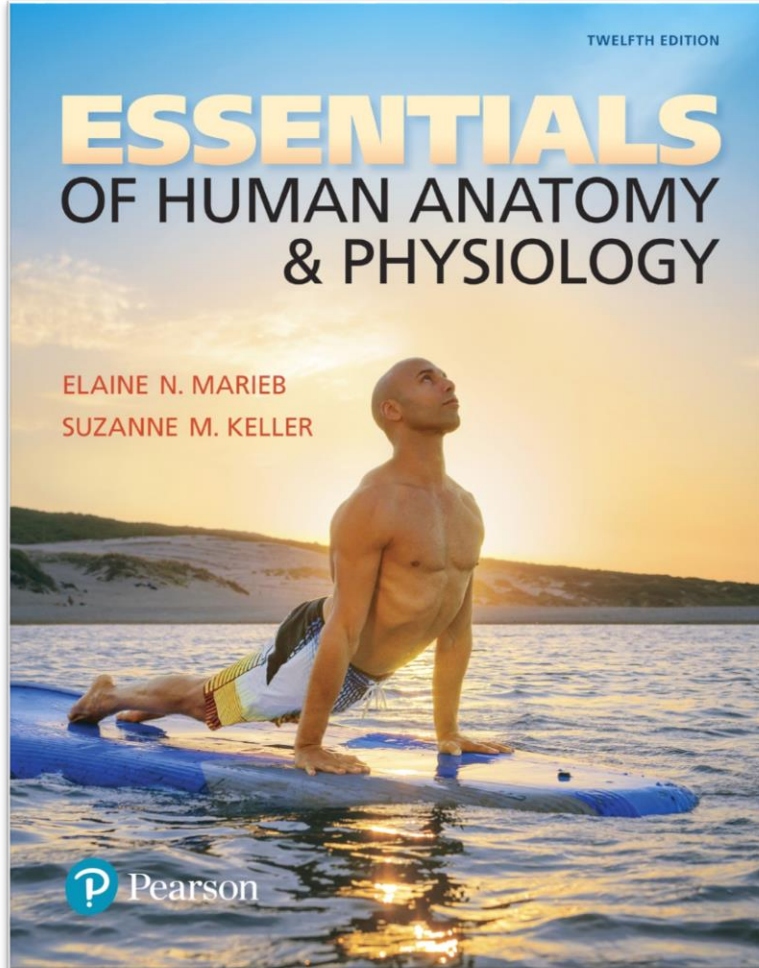


Essentials of Human Anatomy & Physiology

Twelfth Edition



Chapter 11

The Cardiovascular System

Lecture Presentation by
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Major Veins

Veins of the head and trunk

- Dural venous sinuses
- External jugular vein
- Vertebral vein
- Internal jugular vein
- Right and left brachiocephalic veins
- Superior vena cava
- Great cardiac vein
- Hepatic veins
- Splenic vein
- Hepatic portal vein
- Renal vein
- Superior mesenteric vein
- Inferior mesenteric vein

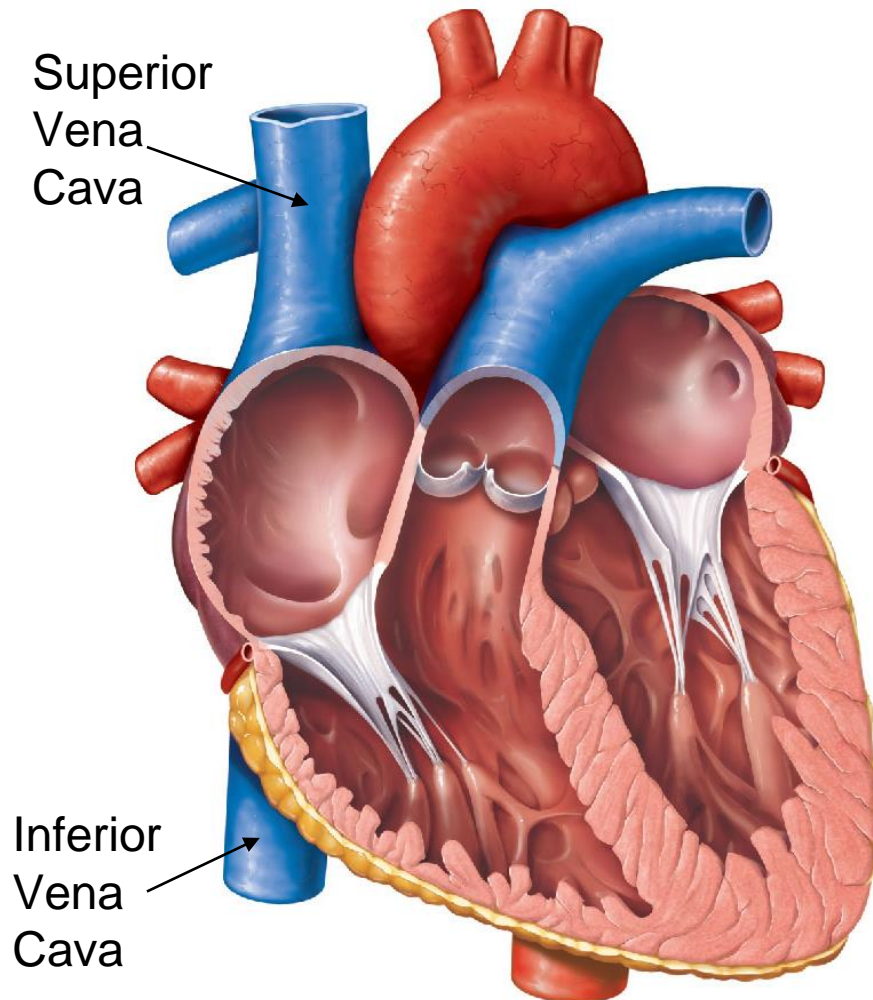
Veins that drain the upper limb

- Subclavian vein
- Axillary vein
- Cephalic vein
- Brachial vein
- Basilic vein
- Median cubital vein
- Ulnar vein
- Radial vein
- Digital veins

Veins that drain the lower limb

- Inferior vena cava
- Common iliac vein
- External iliac vein
- Femoral vein
- Great saphenous vein
- Popliteal vein
- Posterior tibial vein
- Anterior tibial vein
- Small saphenous vein
- Dorsal venous arch
- Dorsal metatarsal veins

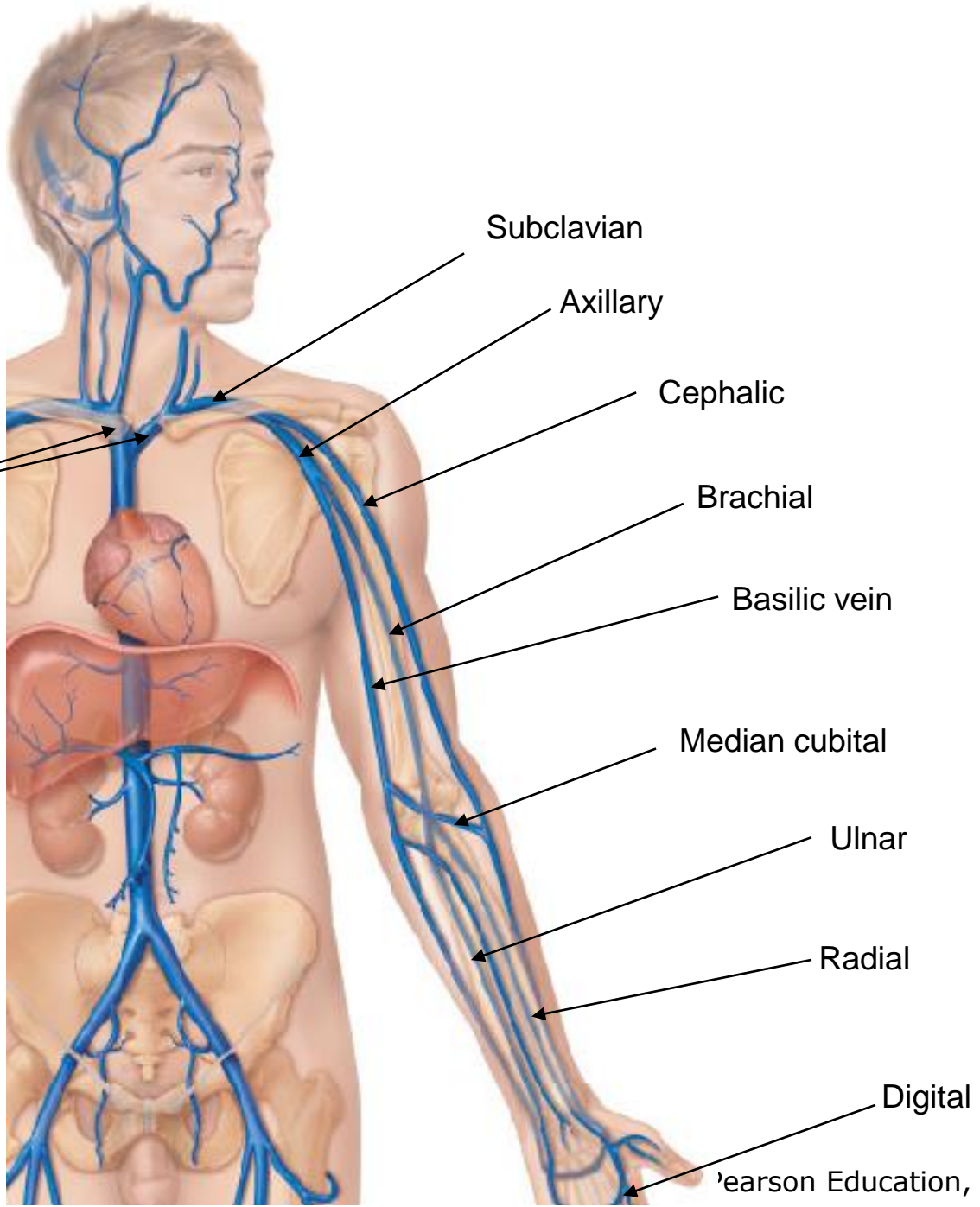
Major Veins



- Superior vena cava and inferior vena cava enter the right atrium of the heart
 - Superior vena cava drains the head and arms
 - Inferior vena cava drains the lower body

Major Veins

- Veins draining into the superior vena cava
 - Radial and ulnar veins → brachial vein → axillary vein
 - Cephalic vein drains the lateral (outside) aspect of the arm and empties into the axillary vein
 - Basilic vein drains the medial (inside) aspect of the arm and empties into the brachial vein
 - Basilic and cephalic veins are joined at the median cubital vein (elbow area)



Subclavian

Axillary

Cephalic

Brachial

Basilic vein

Median cubital

Ulnar

Radial

Digital

Right and left
brachiocephalic
veins

Major Veins

- Veins draining into the superior vena cava
 - Subclavian vein receives:
 - Venous blood from the arm via the axillary vein
 - Venous blood from skin and muscles via external jugular vein
 - Vertebral vein drains the posterior part of the head
 - Internal jugular vein drains the dural sinuses of the brain

External Jugular

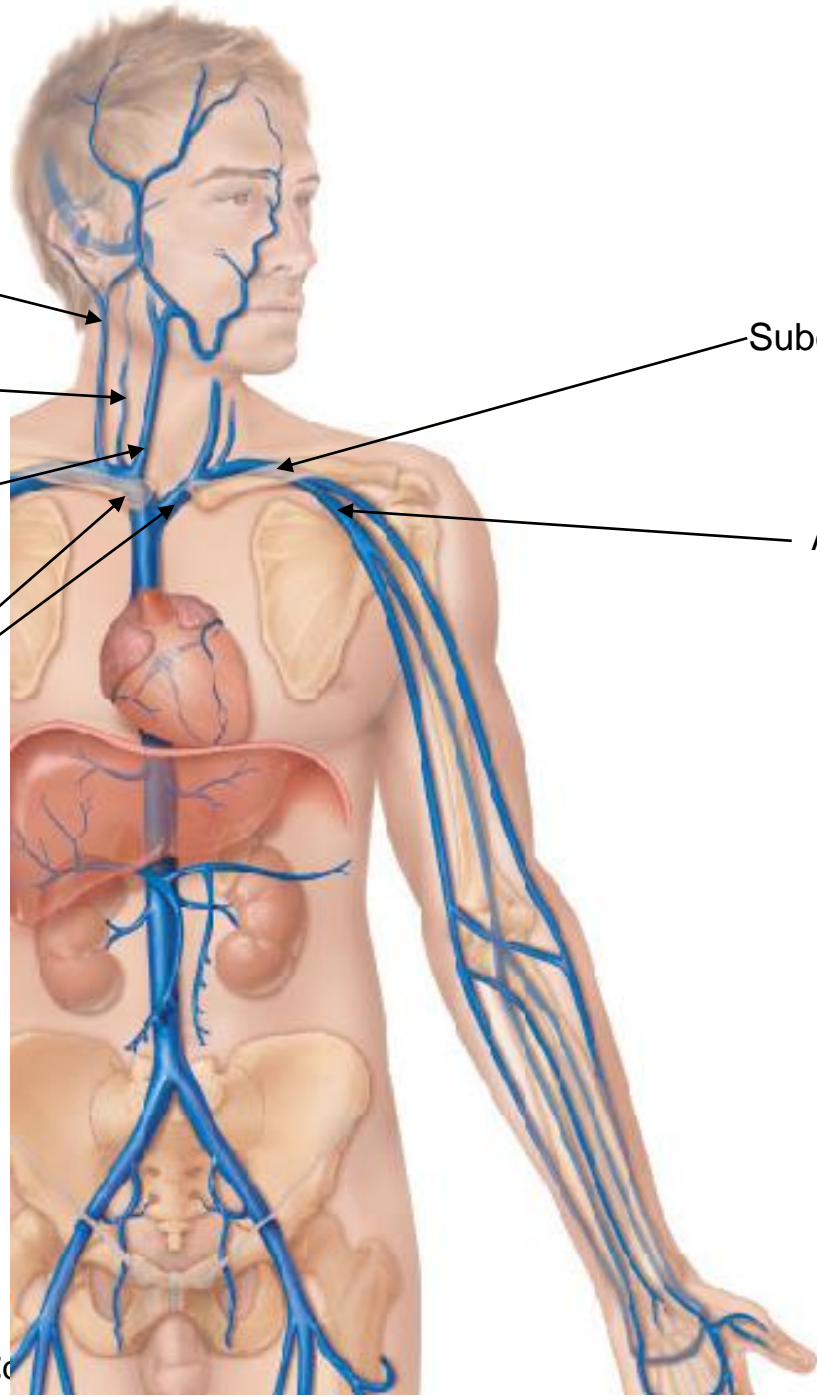
Vertebral

Internal Jugular

Right and left
brachiocephalic
veins

Subclavian

Axillary



Major Veins

- Veins draining into the superior vena cava
 - Left and right brachiocephalic veins receive venous blood from the:
 - Subclavian veins
 - Vertebral veins
 - Internal jugular veins
 - Brachiocephalic veins join to form the superior vena cava → right atrium of heart
 - Azygos vein drains the thorax

External Jugular

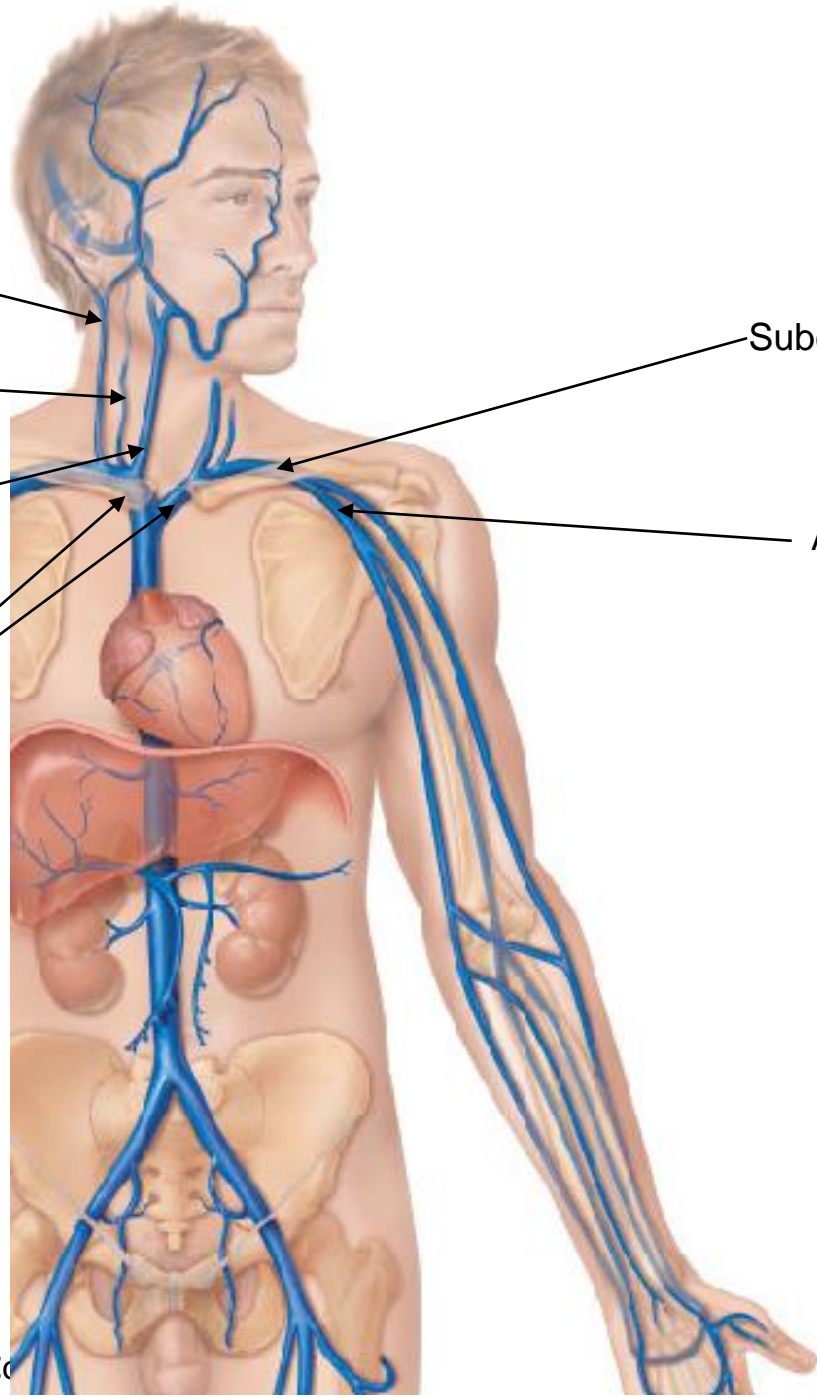
Vertebral

Internal Jugular

Right and left
brachiocephalic
veins

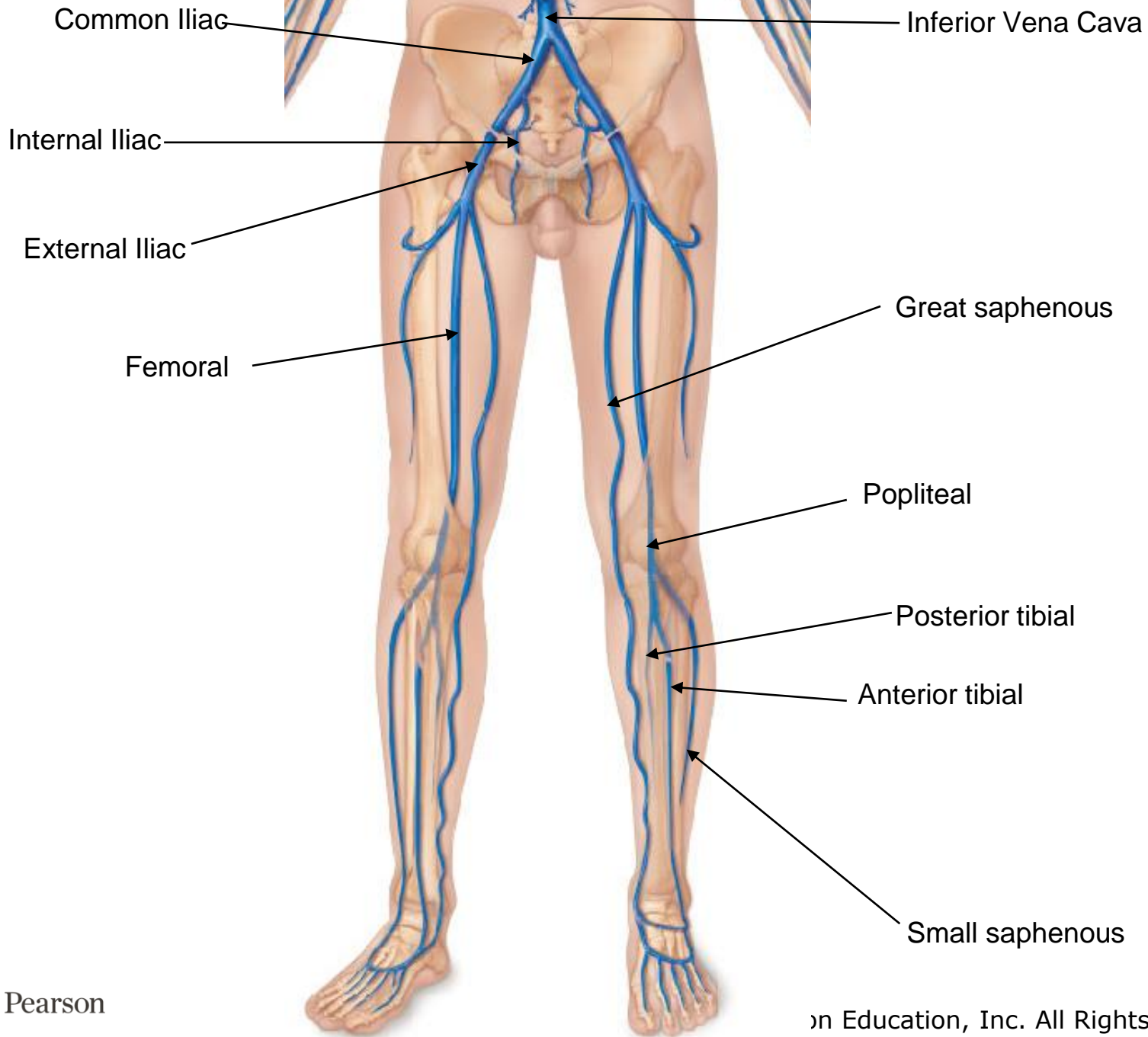
Subclavian

Axillary



Major Veins

- Veins draining into the inferior vena cava
 - Anterior and posterior tibial veins and fibial veins drain the legs
 - Posterior tibial vein → popliteal vein → femoral vein → external iliac vein
 - Great saphenous veins (longest veins of the body) receive superficial drainage of the legs
 - Each common iliac vein (left and right) is formed by the union of the internal and external iliac vein on its own side



Major Veins

- Veins draining into the inferior vena cava
 - Right gonadal vein drains the right ovary in females and right testicle in males
 - Left gonadal vein empties into the left renal vein
 - Left and right renal veins drain the kidneys
 - Hepatic portal vein drains the digestive organs and travels through the liver before it enters systemic circulation
 - Left and right hepatic veins drain the liver

